

# PHOENIX SCHOOL CROSSING SAFETY AUDIT PROCEDURE

City of Phoenix Street Transportation Department

Phoenix places a very high priority on traffic safety at schools and school crossings. Our goal is to provide the most efficient and the safest possible conditions for children walking or riding their bikes to school. This is important for the crossing guards and parents who walk their children to school as well

School Crossing Safety Audit guidelines have been developed to review and evaluate crossings in Phoenix. This procedure is intended to make it easier and safer to walk to school, thereby encouraging more students to walk instead of being driven by their parents. Unnecessary traffic congestion in front of schools and in the school parking lots can pose an increased threat to traffic safety. The audit procedure is primarily intended for elementary schools and middle schools where younger students cross, however, it may also be used for high schools.

The School Crossing Traffic Safety Audit process is a cooperative effort between the schools and the City of Phoenix. The participants involved in a school audit should include:

- School Principal or Assistant Principal
- School District Representative (Transportation Director, Risk Manager, or representative of the Superintendent's office)
- Crossing Guard or School Facilities Director
- Street Transportation Department School Safety Specialist
- Phoenix Police Officer (optional) or School Resource Officer (if one exists)

A School Crossing Safety Audit form has been developed to assist in the evaluation. One safety audit form must be used to evaluate each school crossing. Where there are two or more school crossings at a location, the busiest crossing should be evaluated. If there are two busy crossings at an intersection, it is best to complete two separate safety audit forms, one for each crossing.

The Street Transportation Department recommends completing a "*Safest Route to School*" walking plan prior to conducting safety audits. The "*Safest Route*" plan will help to identify which crossings would benefit from an audit review. Furthermore, some crossings may be added or eliminated when developing the school walking route plan. The Street Transportation Department can help schools develop a "*Safest Route to School*" walking plan.

During the audit, points are assigned based on specific physical conditions or traffic observed at the crossing. Those locations with the highest number of points are those that generally warrant the most attention. A location with a high number of points does not mean that it is "hazardous", however, it usually

indicates that the crossing should be evaluated for possible improvement. The safety audit process can also be used to identify the type of treatments that can be implemented to improve conditions.

At some locations it is not possible to change conditions to reduce the point total. Furthermore, no evaluation form can anticipate all conditions, circumstances, or combination of conditions. Engineering judgement must be used to determine if it will be beneficial to implement a change. The treatments listed to improve conditions are not meant to be exhaustive, and other safety measures should be considered. In some instances, it may be necessary to eliminate a crossing if the street is too wide and the traffic is too busy.

The points assigned during an audit can be reduced after improvements are implemented. It is important to conduct a post-audit review after the improvements are completed to record the new point count and ensure that all improvements have been properly implemented, and there are not new concerns to consider.

The points assigned to a crossing may be useful to conduct comparisons between crossings for a school or for the entire school district. Those crossings with the highest number of points should warrant the highest level of attention. The School Crossing Safety Audit is also an ideal way to develop an inventory of conditions at a crossing. While this process focuses on engineering improvements, education and enforcement measures are also crucial in providing safe walking conditions around schools.

## Completing the School Crossing Safety Audit Form

Crossing Location: A safety audit should be completed for each of the major school crossings. The 'major' crossings include all 15 mph zone crosswalks, all crossings where an adult guard is assigned, all locations where young children cross major streets or half-mile collector streets, and any other location where there is a concern expressed by the principal, facilities director or Parent-Teacher Organization at the school. A '*Safest Route to School*' walking plan is helpful to identify the important safety crossings. A separate audit form should be completed for each crossing under review. The specific crossing must be clearly identified, as well as the person completing the audit form. It is ideal to conduct the audit when children are crossing to obtain a better understanding of the traffic conditions when the crossing is in use. This will also provide an opportunity to observe the adult guard(s) at work to determine if there are any training needs.

1. Number of Student Crossings: The table for recording the number of student crossings during each school arrival and dismissal period should be completed by the crossing guard or other school official on a typical school day BEFORE the audit is conducted. Only school-age children should be counted. The "arrival time" is the time a school session begins, and the

“dismissal time” is when a school session is released. School grade levels for these arrivals and dismissals should be recorded during each count (i.e. grades K-2, or grades K-6). The date of each count should also be recorded. The table allows for recording up to eight arrival and dismissal periods during a typical school day. This table is used to determine the number of students crossing during the busiest time of the day.

2. Grade Level of Students: The youngest grade level using the crossing should be checked. If the school has grades K-8 or K-12, it should be listed as an “elementary school crossing”.
3. Sidewalks: Sidewalks can be paved or unpaved. If unpaved, the sidewalks should be unobstructed and have a firm, flat walking surface. Paved, all-weather sidewalks are preferred, and they should exist on both sides of the crossing. Any deficiencies in the sidewalks should be noted on the form.
4. Wheelchair Ramps: A crossing should accommodate all pedestrians, including those in wheelchairs. Curb ramps also facilitates students walking their bikes, students with book bags on rollers, and parents with strollers. The absence of a wheelchair ramp at a crossing should be noted for future improvement. Other maintenance conditions should be recorded for repair, including: ramps that are too steep (slope greater than 8.3%), broken or badly cracked ramps, pot holes or cracks in the crosswalk, asphalt rollups at the edge of the street.
5. The Number of Traffic Lanes: This is the total number of lanes a students must cross, including all through lanes in both directions, as well as left-turn lanes, right-turn lanes, and the center two-way left-turn lane. Median islands or pedestrian refuge areas are not counted as traffic lanes. Bike lanes and parking lanes are similarly not counted. If there is no centerline on the street, it is a two-lane street (one lane in each direction).
6. Posted Speed Limit: Record the speed limit on the street being crossed. Do not record a special school speed limit (such as 15-mph zone) that may exist during school crossing times. If a local street within a neighborhood is not posted, State Law establishes the speed limit at 25 mph. School crossings should not exist on a street that is posted higher than 45 mph. A speed limit must be reasonable to be supported by the courts and police, and unrealistic speed limits should be avoided. State law requires speed limits to be set based on an engineering study, which generally involves a radar speed study. An unrealistically low speed limit typically will not change the speed of drivers, and may only change the percentage of violators.

7. Is the Crossing Within 600 Feet of a Traffic Signal, STOP Sign or 15- mph School Zone: When drivers are faced with multiple traffic restrictions or excessive controls, they are more likely to be ignored. It is generally inappropriate to locate a crosswalk immediately downstream from a traffic signal, STOP sign, or 15-mph school zone. Ideal crossing locations across major streets or half-mile collector streets are best identified through a '*Safest Route to School*' walking plan.
8. Is the Crossing at an Intersection: Drivers usually expect pedestrians to cross at intersections and may not always expect a midblock crossing, however, under some circumstances there may be an advantage to a midblock crossing. Ideal crossing locations are best identified through a '*Safest Route to School*' walking plan.
9. Traffic Control at the Crossing: Record the traffic control for the vehicles travelling through the crosswalk. There are three types of control possible: Traffic signal, STOP signs or 15-mph school zone, and no two types of control can be combined. If none of these devices exist, it is an 'uncontrolled' crossing. The evaluator should inspect all traffic control devices at the crossing and should make sure they are in good condition. Record any deficiencies in the crosswalk lines, signs, pedestrian push buttons, etc. for repair.
10. Obstructions to Drivers' or Pedestrians' Visibility: Vision obstructions can result from landscaping, walls, irrigation structures, parked vehicles, utility poles or other objects. Every effort should be made to eliminate visibility obstructions. The adjacent property owner is responsible for maintaining their landscaping and keeping their trees and bushes from blocking sidewalks or visibility at corners. Existing visibility obstructions should be recorded on the form.
11. Surface of Student Waiting Area: Children should ideally have a flat, all-weather waiting area for crossing that is back from the curb. It is preferred for children to wait on a paved surface. Students should not wait on private homeowners' property without their permission.
12. Student 'Stand-Back' Line: These are lines painted on the sidewalk at the corner to keep the students back from the curb while waiting to cross. They are generally not needed when crossing a local street with low traffic. Stand-back lines are useful tools for streets with higher speed traffic, especially when there are large groups of students waiting to cross. Depending on the conditions, stand back lines (when used) may be painted from three to ten feet back from the curb.

13. Size of Student Waiting Area: The size of the student waiting area should be based on the largest number of students that typically accumulate at the crossing. Often, larger waiting areas are needed for school dismissal when student groups are larger. Students walking to school are generally more dispersed and random. Where traffic is busy or speeds are high on the street being crossed, there should be a buffer between the students and moving traffic. At times a bike lane may serve as a buffer area. The audit provides an ideal time to determine if it necessary to provide a larger waiting area for students.
14. Number of Adult Crossing Guards: A crossing guard is *required* for 15-mph school zones that are 'non-abutting' to school property. The guards are used to assist student crossings, teach students how to cross safely, and make sure the portable signs are not knocked down while in the street. Adult guards should generally be used when elementary or middle school students cross an arterial street, and may be necessary at some half-mile collector street crossings and other busy crossings near school. One adult guard is recommended where large numbers of young students cross busy streets or streets with speed limits that are 30 mph or higher. Where the students have to cross four or more lanes, two adult guards are recommended.
15. Crossing Guard Training: It is recommended that all crossing guards have training on how to safely work in the street. Annual refresher training is also recommended. Phoenix will provide crossing guard training videos that can be used for training or refresher training. Phoenix hosts an annual training class before the start of the school year, but it is the responsibility of the school to make sure that their guards and substitute guards are trained.
16. Crossing Guard Equipment: It is recommended that all crossing guards have:
  - A bright reflective safety vest in good condition
  - A STOP paddle in good condition
  - A bright hat
  - A 2-way radio or cellular phone for emergency purposes

A crossing guard should not step into the street without wearing a bright, reflective safety vest, and that includes when placing and removing the 15 mph portable signs from the street. It may be helpful for a school to have a spare safety vest in the office for substitute guards. Bright hats of orange or fluorescent yellow-green will help make the crossing guard more recognizable and more conspicuous to drivers, and help protect them from the harmful effects of the sun. Phoenix provides 18-inch STOP paddles to any school guard working in the City at no cost. The guards are required to keep their STOP paddles in good condition. A two-way radio (or alternatively a cellular phone) is recommended for emergency purposes. If the guard has a cellular

phone, it MUST only be used for emergency purposes. The guard shall not make or receive any non-emergency calls while the students are crossing.

17. Crosswalk Location: Crosswalks that do not abut the school grounds require more supervision, and 15 mph zones that are non-abutting have different legal obligations. Adult supervision is not only helpful for monitoring traffic safety, but may also be helpful to monitor suspicious activities and possible gang-related activities near the school.
18. Unusual Traffic Conditions: The crossing guards, school facilities supervisor or principal can generally provide the best input into these concerns. Check ALL boxes that may apply, and provide comments on each box that is checked.
19. Unusual Student Conditions: The 'language barrier' box should be checked if a crossing guard cannot effectively communicate with a large number of the students crossing. Student management problems can include students (or parents) who will not follow the instructions of the adult guard, or gang activities near the crossing. Check ALL boxes that apply, and provide comments for all boxes that are checked.
20. Number of Vehicle Collisions Within the Past 12 Months: This information will be obtained by the Phoenix School Safety Specialist using the 12 most recent months of available police collision records. Phoenix staff will look at how and when the crashes occurred to determine if any were school related.
21. Number of Pedestrian Collisions Within the Past 12 Months: This information will be completed by the Phoenix School Safety Specialist using the 12 most recent months of available police collision records. Phoenix staff will review the police reports to understand how and when the crashes occurred and determine if any were school related.

Notes: The School Safety Specialist should record all maintenance needs, concerns expressed, unusual conditions, other studies needed and recommended improvements for the crossing. These items will result in follow-up investigation or work orders for corrective action or improvement.

## School Crossing Safety Audit Procedure

1. The school or school district contacts a Phoenix School Safety Specialist (602-262-4659) to request an audit and schedule a meeting when all key representatives from the school, school district, and City are available. More than one safety audit at a school can be accomplished on the same day, and it may be possible to conduct safety audits for more than one school on the same day. It is ideal to conduct traffic safety audits after a '*Safest Route to*

*School'* walking plans has been completed to identify the important crossing locations.

2. The Phoenix School Safety Specialist will meet with the principal and provide the school a copy of the school crossing audit guidelines. The principal and school safety specialist will determine which crossing locations should be evaluated. One safety audit form for each crossing will be provided to the school.
3. The crossing guard or school official will conduct a count at each crossing to determine the number of students using the crossing during each arrival and school dismissal period on a typical school day.
4. The City and school officials will meet at the school crosswalks to review conditions, complete the school safety audit forms, and collect any other necessary information about the crossing. It is best to conduct this process when children are crossing to observe traffic conditions and the crossing guard.
5. The Phoenix School Safety Specialist will obtain the police collision records and add that information to the audit form for each crossing. Follow-up studies (if needed) will be conducted by the City.
6. The City will prepare a letter report to the school district representative and school principal providing a summary of findings and recommendations. All recommendations that can be accomplished without school participation will be scheduled for implementation. If needed, a meeting will be scheduled to discuss those recommendations requiring school/district input or participation.
7. Implement recommended improvements at the crossing. Some can be implemented immediately, others may require designs and identifying funding sources.
8. After all improvements have been completed, a follow-up review of conditions should occur to reassess the crossing and ensure that the improvements were implemented properly. Other improvements may be identified during this process.



# City of Phoenix Street Transportation Department



## School Crossing Safety Audit Form

(Please complete one survey for each crossing)

Date: \_\_\_\_\_

Name of Street Crossed: \_\_\_\_\_

Name of Intersecting Street: \_\_\_\_\_

Crossing Location:     North     South     East     West     Mid-Block

Survey Completed By: \_\_\_\_\_ Title: \_\_\_\_\_

### STUDENT CROSSINGS

Arrival or Dismissal Time	Grade Level(s)	Number of Students Crossing	Date

**1. How many students cross during the busiest time of day?**  
 0 to 10 (0 points)     11 to 25 (2 points)     26 to 50 (4 points)     51 to 75 (7 points)     76 or More (10 points)

**2. What is the grade level of students crossing during the busiest time of day?**  
 High School (0 points)     Middle School (2 points)     Elementary School (5 points)   

**3. Are sidewalks Present?**  
 Yes (0 points)     No (10 points)     Sidewalks Exist, more are needed (5 points)  
 Existing sidewalks need repair or widening (5 Points)

**4. Are there wheelchair ramps at each end of the crossing?**  
 Yes (0 points)     No (5 points)     One (3 points)   

**5. How many lanes of traffic must students cross?**  
 2 Lanes (0 points)     3 or 4 Lanes (5 points)     5 or 6 Lanes (8 points)     7 or More (10 points)

**6. What is the posted speed limit (mph) on the street students cross?**  
 25 (0 points)     30 (2 points)     35 (6 points)     40 (8 points)     45 (10 points)   

**7. Is the crossing within 600 feet of a traffic signal, STOP Signs, or 15 mph School Zone?**  
 Yes (10 points)     No (0 points)

**8. Is the Crossing at an intersection?**  
 Yes (0 points)     No (2 points)   

**9. What type of Traffic Control is present on the street students cross?**  
 Traffic Signal (0 points)     Stop Signs (0 points)     15-mph Zone (8 points\*)     Uncontrolled Crossing (5 points\*)  
 \* ADD 5 Points for Streets with 4 or more Lanes

**10. Are there obstructions to drivers' or pedestrians' views as they approach the crossing?**  
 No (0 points)     Yes, by Landscaping (5 points)     Yes, By a Physical Object, such as a wall (10 points)   

**First Page Points (Carry Forward)**





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**11. What type of surface is the student waiting area?**

- Asphalt or Concrete (0 points)     Gravel (3 points)     Grass (5 points)     Dirt (5 points)

**12. Are there 'Stand Back' Lines on the sidewalk to define the student waiting area?**

- Yes (0 points)     No (2 points \*)    \* ADD 5 Points for Streets with 4 or more lanes

**13. Is the waiting area large enough for students?**

- Yes (0 points)     No (10 points)

**14. What adult supervisor is there at the crossing?**

- Two Adult Crossing Guards (0 points)     One Adult Crossing Guard (0 points \*)     No Crossing Guards (5 points \*)

\* ADD 5 points for Streets with 4 or more lanes

**15. Has the crossing guard received training in the proper way to cross children?**

- Yes (0 points)     No (10 points)

**16. Is the crossing guard missing any of the following equipment?**

- STOP Paddle (5 points)     Vest (5 points)     Bright Cap (2 points)     Radio, or Mobile Phone (2 points)

**17. This Crosswalk:**

- Abuts the school grounds (0 points)  
 Does not abut the school grounds, but adult supervisor exists between the crosswalk and the school (5 points)  
 Does not abut the school grounds, and no adult supervisors exists between the crosswalk and the school (8 points)

**18. What usual traffic conditions exist at this crossing? (check all that apply)**

- Parking Problems (5 points)     Heavy Traffic (5 points)     Truck Traffic (5 points)  
 Large number of Turns (5 points)     Speeding (8 points)

**19. What unusual traffic conditions exist at the crossing? (Check all that apply)**

- Language Barriers (5 points)     Student Management Problems (8 points)

**OFFICE USE ONLY**

**20. How many vehicle crashes have occurred in the past 12 Months?**

**21. How many pedestrian crashes have occurred in the past 12 months?**

Number of Vehicle Crashes in preceding 12 months:	Multiply crashes by 2 to get number of points	

Number of Pedestrian Crashes in preceding 12 months:	Multiply crashes by 5 to get number of points	

**Second Page Points**

**Points Carried over from First Page**

**Total Points**

**Notes:**

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